

IN THE CLAIMS:

Claims 1-19, 21-34, 37-126, 136, 148 and 149 were previously cancelled. None of the claims have been amended herein. All of the pending claims are presented below in the order determined by the Examiner in the Examiner's Amendment. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

1.-19. (Cancelled)

20. (Previously presented) A method of transposon-mediated mutagenesis in a *C. elegans* genome, comprising:

- a. introducing a transgene construct into the *C. elegans* genome, wherein the construct comprises a transposase gene which is operably linked to a regulable expression control element and a 3' untranslated region of a gene that is expressed in the *C. elegans* germline, wherein the 3' untranslated region comprises a *glh-2* 3' untranslated region; and
- b. expressing the transposase gene, such that a transposon in the *C. elegans* genome transposes, causing a mutation in the *C. elegans* germline.

21.-34. (Cancelled)

35. (Previously presented) The method of Claim 20, wherein the transposon comprises a heterologous transposon.

36. (Previously presented) The method of Claim 35, wherein the heterologous transposon is introduced into the *C. elegans* genome.

37.-126. (Cancelled)

141. (Previously presented) The method of Claim 35, wherein the transposon comprises a *Mos1* transposon.

142. (Previously presented) The method of Claim 35, wherein the transposase gene comprises restriction sites 5' of the start codon, restriction sites 5' of the stop codon, and an artificial intron in the transposase gene open reading frame.

143. (Previously presented) The method of Claim 35, wherein the regulable expression control element is an inducible promoter.

144. (Previously presented) The method of Claim 143, wherein the promoter comprises a heat-shock promoter.

145. (Previously presented) The method of Claim 143, wherein the promoter comprises a tetracycline-regulated promoter.

146. (Previously presented) The method of Claim 35, wherein the construct is substantially free of bacterial plasmid DNA sequences.

147. (Previously presented) The method of Claim 35, wherein the construct is substantially free of repeated DNA sequences.

148. (Cancelled)

149. (Cancelled)

150. (Previously presented) The method of Claim 148, wherein the regulable expression control element comprises a *glh-2* promoter.

127. (Previously presented) The method of Claim 20, wherein the transposon comprises an endogenous transposon.

128. (Previously presented) The method of Claim 127, wherein the transposon comprises a Tc3 transposon.

130. (Previously presented) The method of Claim 128, wherein the transposase gene is a TC3A transposase gene.

131. (Previously presented) The method of Claim 127, wherein the regulable expression control element is an inducible promoter.

132. (Previously presented) The method of Claim 131, wherein the promoter comprises a heat-shock promoter.

133. (Previously presented) The method of Claim 131, wherein the promoter comprises a tetracycline-regulated promoter.

129. (Previously presented) The method of Claim 20, wherein the transposase gene is a TC3A transposase gene.

134. (Previously presented) The method of Claim 20, wherein the construct is substantially free of bacterial plasmid DNA sequences.

135. (Previously presented) The method of Claim 20, wherein the construct is substantially free of repeated DNA sequences.

136. (Cancelled)

137. (Previously presented) The method of Claim 20, wherein the regulable expression control element comprises a heat-shock promoter.

138. (Previously presented) The method of Claim 20, wherein the regulable expression control element comprises a *glh-2* promoter.

139. (Previously presented) The method of Claim 20, further comprising introduction of one or more additional copies of an endogenous transposon into the *C. elegans* germline.

140. (Previously presented) The method of Claim 139, wherein the endogenous transposon is a Tc3 transposon.